

# Echoed Verb Constructions in Korean: A Construction-Based HPSG Analysis\*

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**Cho, Sae-Youn & Jong-Bok Kim. 2002. Echoed Verb Constructions in Korean: A Construction-Based HPSG Analysis.** *Korean Journal of Linguistics*, 27-4, 661-681. In terms of truth conditional meaning, there is no difference between Korean Echoed Verb Constructions (EVC) and its declarative counterpart. Issues in EVC are that the constructions exhibit various grammatical idiosyncrasies. The EVC construction has been treated within derivational frameworks with the mechanisms of Head-to-Head movement and Chain Constraint. However, a careful examination of these views reveals that they seem to have theoretical and empirical difficulties accounting for further EVC data. To provide a simpler explanation for further EVC data, we claim that the EVC is a type of syntactic contrastive topic construction with its own constructional constraints. Such a construction-based analysis will enable us to explain general as well as idiosyncratic properties of the EVC in Korean. (Honam University & Kyung Hee University)

**Key words :** Echoed Verb Constructions, Head to Head Movement, Chain Constraints, Contrastive Topic, Constructional Constraint

## 1. Basic Properties of the Echoed Verb Constructions

It is a well-known fact that in terms of truth-conditional meaning, there is no difference between echoed verb constructions (EVC) in (1)a and its declarative counterpart in (1)b.

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- (1) a. John-i sakwa-lul [mek-ki-nun mek-ess-ta].  
 John-NOM apple-ACC eat-Nmlz-TOP eat-PST-DECL  
 'John ate apples, but...'  
 b. John-i sakwa-lul mek-ess-ta.  
 John-NOM apple-ACC eat-PST-DECL  
 'John ate apples.'

The main peculiar properties of the EVC (in particular the bracketed part) start from its morphological idiosyncrasies as noted by No (1988).

- The verb base occurs twice, separated by a delimiter.
- The first occurrence of the verb base is followed by *ki*, which in turn is followed by a delimiter.
- The first occurrence of the verb base is not fully inflected.
- The second occurrence of the verb base occurs with inflected affixes.
- The two occurrences of the verb base are morpheme by morpheme identical modulo inflection.

In addition, the EVC also exhibits phonological idiosyncrasies in that the first part of the verbal complex [V-Infl V-Infl-Decl] sequence has an A accent or High tone as in (2) (cf. Selkirk (1995)):

- (2) John-i sakwa-lul [mek-KI-NUN] mek-ess-ta.  
 John-NOM apple-ACC eat-Nmlz-TOP eat-PST-DECL  
 'John ate apples, but...'

Given such peculiarities, we set up the following three basic research questions and goals.

- What are the grammatical (morphological, syntactic, semantic, and pragmatic) properties of the constructions? This paper tries to provide a more careful empirical investigation on the construction.
- How can we generate such EVC constructions? There have been several derivational analyses (Kang 1988, Choi 2001, Nishiyama and Cho 1988, etc). This paper tries to offer an alternative, nontransformational, constraint-based analysis that utilizes the notion of constructions in the grammar. We will further provide

a brief comparison between these two perspectives.

- Are there any other related constructions to the EVC and if there are, what are similarities and differences among them? We touch two other constructions, similar to the EVC and sketch a construction-based analysis that can capture the generalizations among these constructions.

## 2. Further Properties of the EVC Constructions

### 2.1 Morphological Idiosyncrasies

In terms of morphological properties, there exist further idiosyncrasies: though the bracketed of the EVC in (3) is separated by a delimiter, not all delimiters can occur in the first verbal predicate:

- (3) John-i sakaw-lul [mek-ki-nun/man/\*cocha mek-ess-ta].  
 John-NOM apple-ACC eat-Nmlz-Top/only/even eat-PST-DECL

Another morphological constraint we can observe is that the final verb should bear tense and honoric suffix when required, whereas the preceding verb can optionally have these suffixes:

- (4) a. sensayngnim-i John-ul [manna-ki-nun] [manna-si-ess-ta].  
 teacher-NOM John-ACC meet-Nmlz-TOP meet-HON-PST-DECL  
 'The teacher met John, but...'  
 b. sensayngnim-i John-ul [manna-si-ki-nun] [manna-si-ess-ta].  
 c. sensayngnim-i John-ul [manna-si-ess-ki-nun] [manna-si-ess-ta].  
 d. \*sensayngnim-i John-ul [manna-si-ki-nun] [manna-ass-ta].  
 e. \*sensayngnim-i John-ul [manna-ss-ki-nun] [manna-si-ta].

What the data tell us is that the final verb needs to agree with the honored subject and bear a tense suffix. This implies that the final verb, but not the first verb, functions as the head of the verb phrase.

### 2.2 Pragmatic Idiosyncrasies

Semantically and pragmatically, EVC sentences can be a reply to a predicative event asking question like (5):

- (5) A: John-un ettay? John-un cenyeeok mekesse?  
 John-TOP how John-TOP dinner ate  
 'What about John? Did he eat dinner?'  
 B: [John-i [cenyeeok-ul [[<sub>CT</sub> mek-ki-nun] v[mek-ess-e]]]]  
 'John ate dinner, but (he is still hungry)'

As noted in (5), the replier introduces such an echoed construction as a way of indicating that he or she has a negative answer to A but does not explicitly express it (cf. Lee 2000).

### 2.3 Syntactic Idiosyncrasies

In terms of syntax, we also find peculiarities of the construction: First, neither the subject nor the object can participate in such echoed verb constructions:

- (6) a. \*John-i [Tom-ul manna-ki-nun] [Tom-ul manna-ss-ta].  
 b. \*[John-i Tom-ul manna-ki-nun] [John-i Tom-ul manna-ss-ta].

The distribution of adverbs is also strictly constrained in the EVC. When an adverb is echoed, both the first (vacuous) and the second one are optional:

- (7) John-i Tom-ul [(cacwu) manna-ki-nun] [(cacwu) manna-ss-ta].  
 John-NOM Tom-ACC often meet-Nmlz-TOP often meet-PST-DECL  
 'John often met Tom, but...'

In addition, the adverb in the EVC must precede the verbal predicate:

- (8) \*John-i [cacwu Tom-ul manna-ki-nun] [cacwu manna-ss-ta].

An additional constraint that we can observe is that the repeated adverb must be identical with the following one as shown in (9):

- (9) \*John-i Tom-ul [cacwu manna-ki-nun] [congcong manna-ss-ta].  
 John-NOM Tom-ACC often meet-Nmlz-TOP sometimes meet-PST-DECL

There is also a tight syntactic cohesion between the two complexes.

No element can be scrambled out of the EVC:

- (10) a. \*[(cacwu) manna-ki-nun<sub>i</sub>] [John-i Tom-ul [\_\_]]  
 often meet-Nmlz-TOP John-NOM Tom-ACC  
 manna-ass-ta].  
 meet-PST-DECL  
 'John often met Tom, but...'  
 b. \*John-i [(cacwu) manna-ki-nun<sub>i</sub>] Tom-ul [\_\_] manna-ass-ta].

As given in (10)a, it is not allowed to scramble the first part of the EVC to the sentential initial position. Neither can we move it to a different position as in (10)b. What this implies is that the sequence including adverbs forms a strong syntactic unit.

### 3. Differences with Other Constructions

Interestingly, there also exist at least two other similar types: *ha*-verb construction (HVC) in (11)a and comparative-echo-construction (CVC) in (11)b:

- (11) a. John-i Tom-ul [manna-ki-nun ha-yess-ta]. (HVC)  
 John-NOM Tom-ACC meet-Nmlz-TOP do-PST-DECL  
 'John met Tom, but ...'  
 b. John-un Mary-lul [manna-myen mannal-swulok]  
 John-TOP Mary-ACC meet-FORM meet-FORM  
 hayngpokhata. (CVC)  
 happy  
 'The more often John meets Mary, the happier he is.'

In particular, when we compare the EVC with the HVC, we find substantial differences between the two constructions.

First, as noted earlier, not all delimiters can occur in the EVC. However, the HVC displays less restrictions in the attachment of delimiters, as can be seen from the following contrast:

- (12) John-i sakaw-lul mek-ki-nun/\*cocha mek-ess-ta.  
 John-NOM apple-ACC eat-Nmlz-Top/even eat-PST-DECL

- (13) John-i sakwa-lul mek-ki-nun/to/cocha/man/ hayessta.  
 John-NOM apple-ACC eat-Nmlz-Top/even/only did

Second, case marking also displays a difference: the accusative case-marker can be attached to the first verb in the HVC but not to the one in the EVC:

- (14) a. John-i sakwa-lul mek-ki-lul ha-ss-ta.  
 b. \*John-i sakwa-lul mek-ki-lul mek-ess-ta.

Third, when the short form negator *an* is attached to the first part of the constructions, it should be repeated in the EVC as in (15)a, but not in the HVC as in (15)b:

- (15) a. John-i Tom-ul [**an-manna-ki-nun**] an-mannassta.  
 John-NOM Tom-ACC NEG-meet-Nmlz-TOP NEG-met  
 'John didn't meet Tom, but ...'  
 b. \*John-i Tom-ul [**an-manna-ki-nun**] an-ha-yess-ta.  
 John-NOM Tom-ACC meet-Nmlz-TOP NEG-do-PST-DECL  
 'John didn't meet Tom, but ...'

Fourth, whereas the same verb stem still can be repeated in the EVC including adverbs, the second part of the verbal complex cannot be replaced with the light verb *ha-*:

- (16) a. John-i Tom-ul [silheha-ki-nun] cengmal silhehanta.  
 John-NOM Tom-ACC dislike-Nmlz-TOP really dislike  
 'John really dislikes Tom, but ...'  
 b. \*/??John-i Tom-ul [silheha-ki-nun] cengmal ha-yess-ta.  
 John-NOM Tom-ACC dislike-Nmlz-TOP really do-PST-DECL  
 'John really disliked Tom, but ...'

Fifth, a temporal and locative adverbial phrase can freely occur between the first part and the last part in the EVC. However, this is not possible in the HVC:

- (17) a. John-i o-ki-nun (hankwuk-eye)/(ilnyon-ceneye)  
 John-NOM come-Nmlz-TOP Korea-LOC/one year-before

- o-ass-ta.  
 come-PST-DECL  
 b. \*John-i o-ki-nun (hankwuk-eye)/(ilnyon-ceneye)  
 John-NOM come-Nmlz-TOP Korea-LOC/one year-before  
 ha-yess-ta.  
 do-PST-DECL

Sixth, the first verb of a complex predicate can be repeated in the EVC, but not in the HVC.<sup>1</sup>

- (18) a. John-un Tom-ul [manna cwu-ki-nun] [(manna) cwuessta].  
 John-TOP Tom-ACC meet give-Nmlz-TOP meet gave  
 b. John-un Tom-ul [mana cwu-ki-nun] [(manna) hayessta].  
 John-TOP Tom-ACC meet give-Nmlz-TOP meet did

#### 4. HVC as a Complex Predicate Construction

There exist ample evidence to treat the HVC as a type of complex predicate that the language freely adopts.<sup>2</sup>

A first piece of evidence comes from the fact that the *ha-* verb cannot form a predicate for itself but needs to cooccur with the preceding main verb:

- (19) John-un Tom-ul \*(manna-ki-nun) hayessta.  
 John-TOP Tom-ACC meet-Nmlz-TOP did

Related to this is the fact that the *ha-* verb just carries tense-aspect or

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1 There is one caveat to be noted here: the HVC and the EVC are basically different from the so-called VP topicalization constructions:

- (i) [Pap-ul mek-ki-nun] [John-i — mekessta/hayessta].  
 meal-ACC eat-Nmlz-TOP John-NOM ate/did  
 'As for eating a meal, John did it.

One basic difference comes from the fact that such a VP topicalization case induces no negative implicature reading at all.

2 An anonymous reviewer suggested the HVC may not be different from the EVC. With the evidence provided here we believe that the two constructions are distinct constructions though they have certain similarities.

modality information; no tense suffix appears in the main predicate as in (20)a. This is what we also find in a true complex predicate example as in (20)b:

- (20) a. \*John-un Tom-ul manna-ss-ki-nun hay-ess-ta.  
 John-TOP Tom-ACC meet-PAST-Nmlz-TOP meet-PAST-DECL  
 b. \*John-un Tom-ul manna-ss-e po-ass-ta.  
 John-TOP Tom-ACC meet-PAST-COMP try-PAST-DECL

The replacement of *ha-* verb by a proverb is also another property of complex predicate. Neither the final verb of a true complex predicate nor the *ha* verb in the EVC can be replaced by a proverb:

- (21) a. John-un kong-ul cha-a poassta/\*kulassta.  
 John-TOP ball-ACC kick-COMP tried/did.so  
 b. John-un kong-ul cha-ki-nun hayessta/\*kulassta.  
 John-TOP ball-ACC kick-Nmlz-TOP did/did.so

Negation also tells us that the HVC is just a complex predicate. As in a complex predicate construction, the *ha* verb cannot occur with the short form negation:

- (22) a. \*mek-e an pelessta.  
 eat-COMP NEG completed  
 b. \*mek-ki-nun an hayessta.  
 eat-Nmlz-TOP NEG did

In addition, just like a true complex predicate, the HVC requires the main verb to be in a specific verb form:

- (23) a. \*mek-ci pelessta. 'eat-COMP completed'  
 b. \*mek-um-nun hayessta. 'eat-Nmlz-TOP did'  
 (24) a. mek-e/\*ci pelessta.  
 eat-COMP completed  
 b. \*mek-ki/\*um-nun hayessta.  
 eat-Nmlz-TOP did

The adverb intervention effect also supports the present position. Both

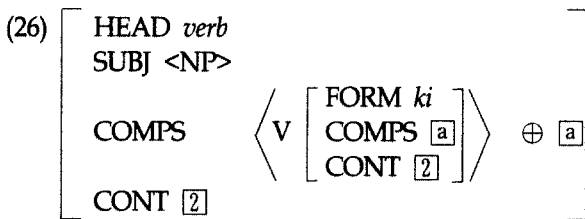


a canonical complex predicate and the HVC does not allow an adverb to intervene:

- (25) a. John-un sakwa-lul mek-ko (\*cengmal) sipessta.  
 John-TOP apple-ACC eat-COMP really want  
 'John wanted to eat an apple.'
- b. John-i Tom-ul manna-ki-nun (\*cengmal) hayessta.  
 John-NOM Tom-ACC meet-Nmlz-TOP really did  
 'John really met Tom.'

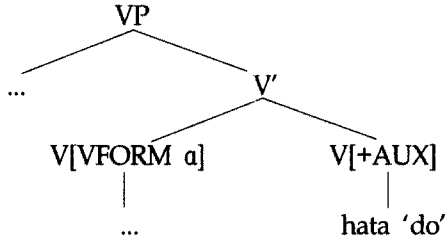
In addition to these properties, there exist two further properties of complex predicate: the *ha-* verb does not have a normal argument structure; it is the main verb that decides the types of arguments in the construction. Also the verb forms a strong syntactic unit with the preceding main verb, disallowing any movement to a different position.

The observations we made so far give us enough reason to take the verb *ha-* as a complex-predicate verb as represented in the following lexical entry:



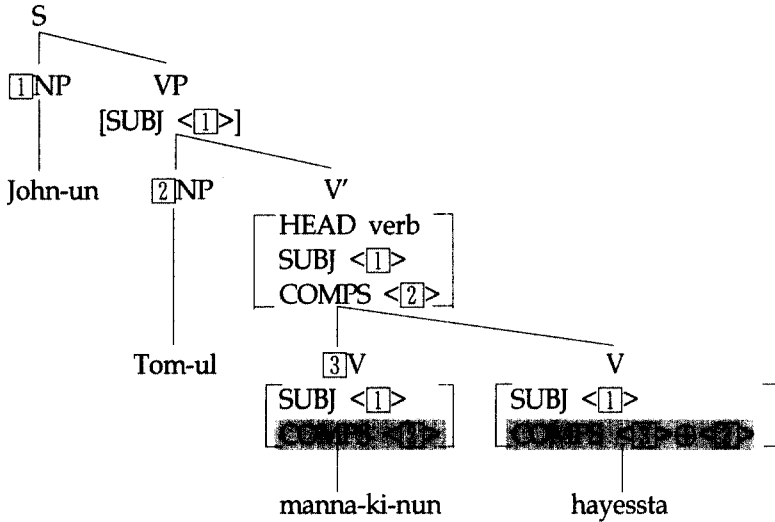
The lexical entry in (26) specifies that the *ha* verb selects as its complement a verbal element as well as the complement(s) that this verb selects. The subcategorization requirements of the complement verb are thus passed to the head *ha* verb with which it combines. This lexical information in turn means that the HVC will basically have a structure like the following:

(27)



Such a structure, combined with the other universal constraints of the HPSG, will generate the following structure:

(28)



The transitive verb *manna-* takes a subject and an object. According to the lexical entry given in (26), the *ha* selects this transitive verb as well as its object complement via the composition mechanism (indicated by shading). When the *ha* verb combines with the main verb *manma-*, the result still requires its object complement. When the resulting verb complex combines with the object complement, it forms the top VP, which in turn combines with the subject NP. We thus eventually can see here that the precise lexical information of the *ha* verb in the HVC projects a grammatical sentence in an explicit manner.

## 5. EVC as an Independent Construction

It is tempting to take the EVC to be a type of complex predicate just like the HVC, based on their similar behaviors. However, as we have seen earlier, there exist various morphological and syntactic differences which can be hardly induced from an identical phenomenon. In what follows, we sketch a construction-based approach to the EVC. Such a construction approach can provide us with a systematic way of capturing both similarities and differences between the two.

As a starting point of our analysis, we accept the view that such an EVC construction is a subtype of (contrastive) topic constructions that Korean freely introduces. Unlike English, languages like Korean syntactically allow a topic phrase to be adjoined to an IP. We assume that the language also allows a topic phrase to be adjoined to a VP, V', or V level.<sup>3</sup> Adopting the idea of Kim (2001), we assume that Korean introduces the following as a well-formed phrase:<sup>4</sup>

(29) *head-topic-ph*:

$X \rightarrow [\text{TOPIC } +], \text{H}[\quad]$

What this schema means is that a head with a topic phrase forms a well-formed phrase. Within a multiple inheritance system, a phrase assigned to a type obtains all the constraints associated with its supertypes, in addition to its own constraints. The concept of hierarchical classification is essentially assigning phrases (like words) to specific types, and an assignment of those types to superordinate types (supertypes). Each type is declared to obey certain constraints corresponding to properties shared by all members of that type. This system then allows us to express cross-classifying generalizations about phrases (like words), while accommodating the idiosyncrasies of individual types on particular subtypes of words.<sup>5</sup>

This then allows us to factor out clausal functions of each phrase while

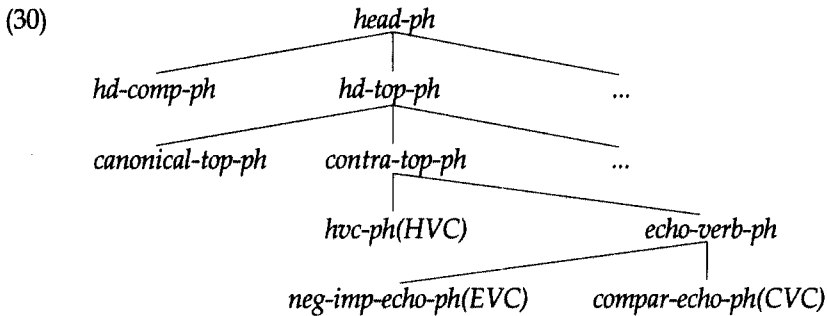
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3 Here the phrase V' means a phrase smaller than a full VP that includes an object. See Fukui (1986) for a similar view.

4 The feature TOPIC is a discourse function.

5 See Ginzberg and Sag (2001) for a comprehensive study of English interrogative constructions developed within such a multiple inheritance system.

capturing generalizations out particular constructions. We thus can assign minimal constraints to its subphrases since the other general constraints can be inherited from its supertypes. Based on the properties of the three types of echo constructions, we assume the following inheritance hierarchy in the Korean grammar:



The hierarchy means that *hd-top(ic)-ph* at least has *canonical-top-ph* and *contra-top-ph* as its subtypes. The phrase *contra-top-ph* is classified to have both *hvc-ph* and *echo-verb-ph* as its subtypes, the latter of which in turn includes two subtypes: *neg-imp-echo-ph* and *compar-echo-ph*. We are not then able to tease out the similarities and differences among the three constructions. First, any instance of *contra-top-ph* will minimally have the following constraint:<sup>6</sup>

- (31) *contra-top-ph*:  
 [     ] → [CONTRA(STIVE) +], H[     ]

What this constraint species is that the non-head daughter of a *contra-top-ph* has the positive value of CONTRASTIVE as its pragmatic information.<sup>7</sup>

6 An anonymous reviewer questions where the contrastive information comes. Within the present analysis, the topic phrase is specified to have the marker value *-nun*. This in turn means that the information comes from the interaction between morphology and construction. Morphology alone cannot be responsible for the information since *nun* could also mark a simple topic information.

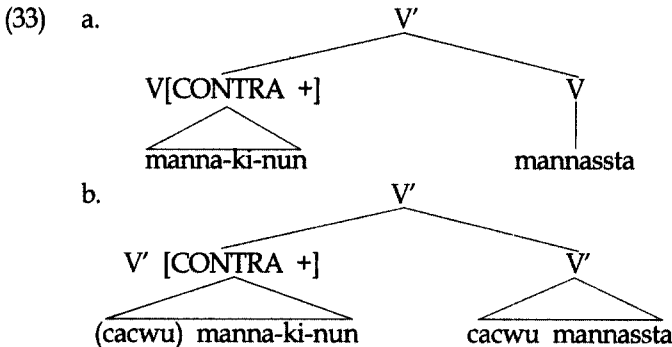
7 Following Lee (2000), we assume that an utterance of a contrastive topic predicate generates a polarity-reversed predicate meaning inversely: if 'CT(p)' is given, then contrastively 'not q' (q: a higher stronger predicate) is conveyed and if 'CT(not-q)' is given, then contrastively 'p' (a lower weaker predicate) is conveyed. See Lee (2000) for

Given that the EVC is basically a type of *head-top-ph*, the next question is how to guarantee that the first part is identical to the latter part. That is, the issue remains how to capture (a) the identity of two verb lexemes and two adverbs if there is any either in the *rst* or in the second. We assume that no core grammar rule can place such an identical condition on the so-called copied part. What we claim is that these are a reflection of constructional constraints in *echo-verb-ph* as represented in (32):<sup>8</sup>

(32) *echo-verb-ph*:

$$V' \rightarrow \left[ \begin{array}{l} \text{HD-DTR } [\boxed{1}v\text{-lexeme}] \\ \text{NONHEAD-DTR}(\boxed{2}) \end{array} \right], \quad H \left[ \begin{array}{l} \text{HD-DTR } [\boxed{1}v\text{-lexeme}] \\ \text{NONHEAD-DTR } \boxed{2} \end{array} \right]$$

The constructional constraint says that in an *echo-verb-ph*, the two daughters will have identical verb lexemes. In addition, if the two daughters have non-head daughters, these two will also have the identical *synsem* values. Given such a constructional constraint, we would generate structures such as those in (33):



further discussion.

8 Adopting Bratt (1995) and accepting a reviewer's suggestion, we assume that Korean allows two lexical (or subphrasal) elements to combine to form a subphrasal element:

(i) Lexical Head-Complement Schema:

$X' \rightarrow \text{Comp}[+\text{LEX}], H[+\text{LEX}]$

This schema captures the constituenthood of a main verb with an auxiliary verb following it. See Sells 1991 and Chung 1993 for a similar analysis.

We also believe that the pragmatic implicature that the phrase *neg-imp-echo-ph* induces comes from nowhere since it is its own constructional constraint. We may represent this pragmatic constraint as follows: <sup>9</sup>

- (34) *neg-imp-echo-ph*:  
 $V' \rightarrow [\text{FORM } ki], \text{ H}[\text{IMPLICATURE } neg]$

Let us then see how this construction-based approach generates an EVC. The canonical verb lexeme *manna-* 'meet' has a basic lexical information such as the one given in (35).

- (35)  $\left[ \begin{array}{l} <manna-ta> \\ \text{HEAD } verb \\ \text{SUBJ } <\text{NP}\{nom\}> \\ \text{COMPS } <\text{NP}\{acc\}> \end{array} \right]$

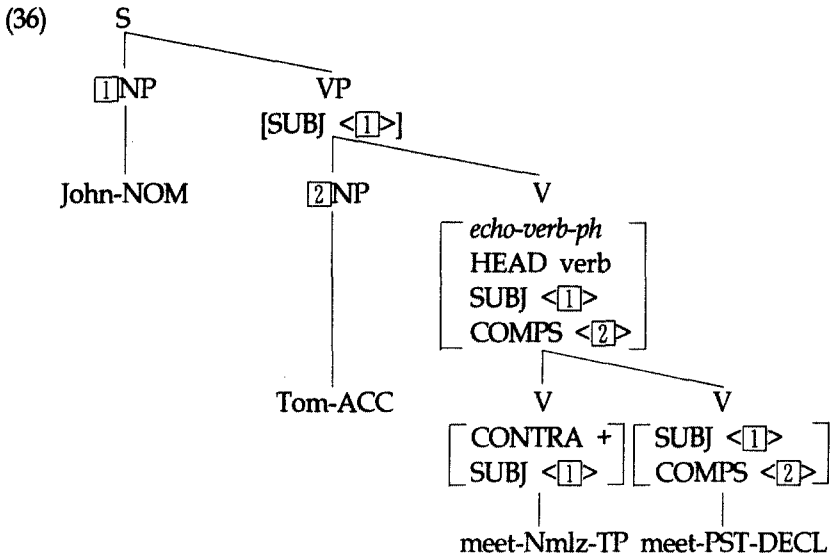
This word will then project an appropriate sentence as illustrated in (36):

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<sup>9</sup> In a similar fashion, we can define constraints on the phrase *comp-echo-ph* as in (i):

(i) *comp-echo-ph*:  
 $V' \rightarrow [\text{FORM } myen], \text{ H}[\text{FORM } swulok]$

This morphological constraint will place strict morphological restrictions on the construction.



As represented, the verb ‘meet’ combines with another verb ‘meet’ that bears a contrastive-topical information. The contrastive topic is adjoined to the head element. In so doing, the preceding verbal element has additional constraints such that its lexeme value should be identical with its own lexeme value, the VFORM value needs to be *ki*, and so forth.

Such an analysis will be basically able to account for the various properties of the EVC we have observed earlier.

First, as we have seen earlier in (4), the first verb can freely instantiate the honorific or the tense suffix. All that matters is the final verb as repeated in the following data:

- (37) a. *sensayngnim-i John-ul [[manna]-ki]-nun* [[manna]-si-ess-ta].
- b. *sensayngnim-i John-ul [[manna-si]-ki]-nun* [[manna-si]-ess-ta].
- c. *sensayngnim-i John-ul [[manna-si-ess]-ki]-nun* [[manna-si-ess]-ta].
- d. *\*sensayngnim-i John-ul [[manna]-si-ki]-nun* [[manna]-ass-ta].
- e. *\*sensayngnim-i John-ul [[manna]-ss-ki]-nun* [[manna]-si-ta].

As specified in (32), what our grammar makes sure is the lexeme identity between the two verbs and the headness of the final verb. (37)d is ruled out since the final verb is the head and required to agree with the subject. (37)e is also unacceptable since the head verb needs to bear a tense

information. The first verb can optionally bear an honorific and a tense suffix, as being a non-head daughter.

The analysis also allows no case marking on the first verb. This is partially due to the fact that the adjoined topic phrase bears no case marking. The grammar requires the first verb to bear the form value *-ki* with a contrastive topic value. This allows other delimiter markers too, but not a case marker:

- (38) \*John-i Tom-ul manna-ki-ka/lul manna-ss-ta.  
 John-NOM Tom-ACC meet-Nmlz-NOM/ACC meet-PST-DECL

In addition, the analysis predicts why, though two identical verbs occur in the construction, only one set of arguments is realized:

- (39) \*John-i Tom-ul [[Mary-lul manna-ki-nun] [manna-ss-ta]].

This is blocked basically from the construction constraint in (32) saying that the nonhead daughter alone is introduced as an adjunct element that has no function of an independent predicate. In addition, the construction constraint specifies that the adjunct cannot be a VP, but must be a V with which it combines. In a similar fashion, the present analysis disallows cases like the following where the echoed part is a VP:

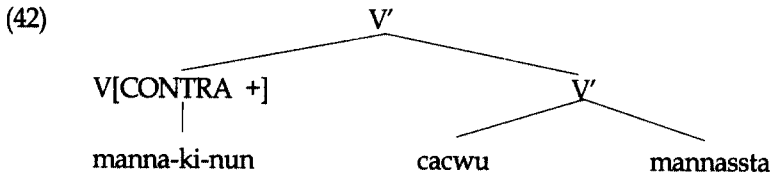
- (40) \*John-i <sub>vp</sub>[Tom-ul manna-ki-nun] [Mary-lul manna-ss-ta].

One remaining issue we have not discussed so far is the presence of adverbs in the EVC as in (41):

- (41) a. John-i Tom-ul [cacwu manna-ki-nun] [cacwu manna-ss-ta].  
 b. John-i Tom-ul [manna-ki-nun] [cacwu manna-ss-ta].

Nothing rules out the occurrence of an adverb in the EVC since the construction allows the nonhead-daughter in the first part to be identical with the nonhead-daughter of the second part (the head). Since the nonhead-daughter of the first part is optional, we also allow cases like (41)b whose structure is represented in the following:





The nonhead-daughter of the final  $V'$  is *cacwu* but the first verb doesn't have any non-head daughter. The identification condition between the two nonhead daughters constraint in (32) does not apply here since there exist no two non-head daughters to be identified. However, when two non-head daughters occur, the *synsem* value of the two must be identical. The analysis thus does not generate EVC cases even with two synonymous adverbs as we have seen earlier:

- (43) \*John-i Tom-ul [cacwu manna-ki-nun] [congcong  
 John-NOM Tom-ACC often meet-Nmlz-TOP often  
 manna-ss-ta].  
 meet-PAST-DECL

Finally, since this approach makes sure that the two verbs form a tight syntactic unit, the present analysis predicts that no scrambling is allowed out of an *echo-verb-ph*, whose data we repeat here:

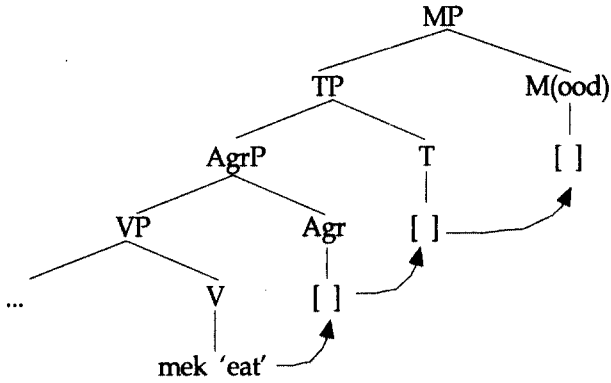
- (44) a. \*(cacwu) manna-ki-nun [John-i Tom-ul manna-ss-ta].  
 b. \*John-i [(cacwu) manna-ki-nun] [Tom-ul (cacwu) manna-ss-ta].

## 6. Comparison with Previous Analyses

### 6.1 V-movement Analysis

The EVC construction has been treated within derivational frameworks with the mechanisms of Head-to-Head movement and Chain Constraint (cf. Kang 1988, Choi 2001) as roughly represented in (45):

(45)



The verb *mek-* moves to Agr, forming the complex [V-Agr] which moves to T and yields [T[AGR [V-Agr]-T]. This complex again moves to C, generating [C[T[AGR V-Agr]-T]-C]. These movement processes leave copies of traces. When they (complex chains) are phonetically realized after the movements, the analysis obtains the EVC construction. The additional mechanisms Choi (2001) introduces are the rule ‘deleting an item with uninterpretable features at PF’ and the *ki*-insertion rule that inserts *ki* to close off the stranded bound verbs.

In addition to the need to posit additional mechanisms which otherwise may not be needed in the grammar, one serious problem such a copying analysis encounters is the occurrence of an adverb in the EVC.

- (46) John-i Tom-ul (cacwu) [manna-ki-nun] cacwu mannassta.  
 John-NOM Tom-ACC often meet-Nmlz-TOP often met  
 ‘John often met Tom, but ...’

Though it might be possible to move the head verb alone, the copying analysis seems to offer no mechanism that allows the adverb *cacwu* ‘often’ to move and copy the trace.

Such an analysis also provides no account for the similarities and differences between the EVC and the HVC that we have observed earlier. Our analysis has shown that the two are identical in that the first verb serves as a contrastive topic phrase. However, they are different in that the HVC is a kind of complex predicate, whereas the EVC forms an independent construction. Within a simple derivational approach like V-movement, there would be no easy way of capturing these.

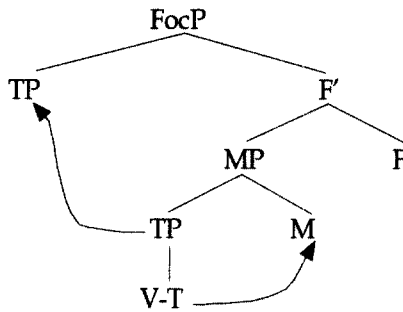
## 6.2 VP, vP, or TP Movement

Another derivational approach that has been set forth is to assume that the EVC is the result of a phrasal movement process (Nishiyama and Cho (1998), Kim, Y.-S. (2002)). For example, in Nishiyama and Cho (1998) analysis, (47)a involves a TP movement whereas (47)b undergoes a VP movement process:

- (47) a. John-i sakwa-lul [mek-ess-ki-nun] mek-ess-ta.  
 John-NOM apple-ACC eat-PST-Nmlz-TOP eat-PST-DECL  
 b. John-i sakwa-lul [mek-ki-nun] ha-ess-ta.  
 John-NOM apple-ACC eat-Nmlz-TOP did

For example, (47)a will have the following TP movement process:

- (48) TP movement



In the tree structure, the trace of TP is spelled out as V-T to support the mood marker and then raises to M. When the first verb bears no tense information as in (47)b, VP-movement undergoes which also includes a do-support operation to support the tense (cf. Nishiyama and Cho (1998:465)).

What such a VP or TP movement process predicts is the generation of sentences like (49):

- (49) [sakwa-lul mek-ki-nun] [John-i hayessta/mekessta].  
 apple-ACC eat-Nmlz-TOP John-NOM did/ate  
 'As for eating apples, John did.'

One important point that we should not miss here is that (49) has no negative implicature meaning at all. In addition, the topic marker here need not function as contrastive. Such examples are simply a VP topic cases.

In addition, such an analysis needs to introduce mechanisms that guarantee the appearance of two identical adverbs, let alone the various grammatical (morphological, syntactic, pragmatic) properties of the construction in question. Phrasal movement processes appear to provide no easy solutions to such issues, either.<sup>10</sup>

## 7. Conclusion

It looks like that even the basic EVC data must be a challenge to current linguistic theories, since they exhibit rather complex linguistic properties. To provide an account of the EVC, derivational approaches (cf. Nishiyama and Cho (1998), Choi (2001), Y.-S. Kim (2002)) have proposed various transformational analyses. However, the previous analyses theoretically and empirically failed in accounting for the properties of the EVC.

In this paper, we have proposed that the EVC is a subtype of a more general phrase *head-topic-ph* with its own constructional constraints. This enables us to generate various EVC sentences and provides us a feasible approach to syntactic, semantic, and further pragmatic aspects of the constructions in question. In particular, the analysis could tell us why the constructions induce various idiosyncratic properties.

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10 An anonymous reviewer points out that the analysis of Nishiyama and Cho (1998) is appealing. Though we are not at a position to argue against their analysis in detail here, we believe that as pointed out here their analysis lacks empirical justifications.

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